

ABSTRACT

[0033] A method and apparatus for controlling when a calibration cycle is started for a metrology tool. The method and apparatus exploits a correlation between a drift of a first parameter (e.g., film thickness measurement drift) and a drift of a second parameter (e.g., CD measurement drift). One embodiment of the method comprises measuring a film thickness on one or more reference substrates to determine when a drift component of these measurements exceeds a pre-determined range and thereafter calibrating the metrology tool when the drift component of the film thickness measurements exceeds the pre-determined range. Generally, the drift of the film thickness measurement will occur prior to substantial drift of the CD measurement occurring.